



# Grain Price OUTLOOK



A joint publication of the Department of Agricultural Economics, College of Agriculture, Purdue University, West Lafayette, Indiana, and the Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign.

## SOYBEANS: LARGE SUPPLIES CONFIRMED, BUT WHAT ABOUT 2005 PRODUCTION?

JANUARY 2005

*Darrel Good*

2005 – No. 2

### Summary

USDA's January reports confirmed a record large 2004 U.S. crop, prospects for large year-ending domestic stocks, and a record 2005 South American crop of soybeans. While these projections were all well anticipated, prices moved lower following the reports. In general, soybean prices have remained higher than anticipated since October in the face of large surpluses. Price strength may have come as a result of a slow pace of farmer sales, a need to rebuild pipeline supplies and a sharp increase in domestic and export consumption following the extreme slow down in July and August 2004.

With indications of a moderation in the domestic crush pace and anticipation of China turning to South American supplies, those price supporting factors may be dissipating. Cash prices may come under additional pressure over the next two months, challenging the October 2004 lows. Uncertainty about both the magnitude of acreage in the U.S. in 2005 and the potential impact of soybean rust on 2005 yields, along with the importance of spring and summer weather, points to more volatile prices from April forward.

### U.S. Stocks to Grow

The USDA's final 2004 crop estimate released on January 12, 2005 showed the U.S. soybean crop at a record 3.141 billion bushels (Table 1). That estimate is only marginally smaller than the November forecast, but 9 percent larger than the first forecast made in August 2004 and 28

percent larger than the 2003 crop. Production in 2004 exceeded the previous record crop of 2001 by 250 million bushels, or 8.6 percent.

The large crop of 2004 reflected a combination of record acreage and a record high average yield. Following three years of modest decline, U.S. soybean acreage increased by 1.8 million, or 2.5 percent, to a record 75.2 million acres in 2004 (Table 2). Acreage declined by 400,000 in Iowa and 350,000 in Illinois, but increased by 280,000 in Arkansas, 250,000 in Nebraska, and 600,000 in North Dakota. As a result, southern growing areas accounted for 15.5 percent of the acreage in 2004, the largest percentage since 1999 (Table 3). The U.S. average yield in 2004 is estimated at 42.5 bushels per acre, 1.1 bushels above the previous record of 1994 (Table 2). Most major soybean producing states had record yields in 2004, led by the 51 bushels in Indiana.

The USDA's December *Grain Stocks* report, released on January 12, 2005, estimated December 1, 2004 soybean inventories at a record 2.305 billion bushels, 36.5 percent larger than inventories of a year earlier and nearly 65 million larger than the previous record in 2001 (Table 5). Use of soybeans during the first quarter of the 2004-05 marketing year totaled 949.5 million bushels, slightly larger than the previous record of a year ago. The largest increase came in exports, with first quarter shipments of 406.4 million bushels, nearly 21 million more than the previous record of last year. The domestic crush was also record large by a small margin.

USDA reports indicate that U.S. exports of soybeans have continued at a brisk pace since the end of the first quarter of the marketing year, November 30, 2004. Cumulative marketing year export inspections as of January 20, 2005 were 5 percent larger than inspections of a year ago. Shipments to China are up 21 percent so far this year, while shipments to the European Union are up 8 percent. Other major customers: Japan, Taiwan, South Korea, and Mexico have imported fewer U.S. soybeans than at this time a year ago. China has accounted for 46 percent of all U.S. exports to date.

For the year, the USDA projects U.S. soybean exports at 1.01 billion bushels, 14 percent more than exported during the 2003-04 marketing year. Last year, exports declined by more than usual during the last half of the marketing year due to limited supplies. Exports during the first quarter of the year accounted for nearly 44 percent of the marketing year total. Exports from the U.S. will decline seasonally from April through August 2005, as South American supplies become available, but the decline will not be as large as that of last year. As of January 13, 2005, 211 million bushels of U.S. soybeans had been sold for export, but not yet shipped. New sales need to average only about 6 million bushels per week through August in order to reach the USDA's forecast of 1.01 billion bushels.

Whether exports exceed or fall short of the USDA projection will depend partly on the size of the South American crop and the buying pattern of China. The USDA currently projects the South American harvest at nearly 4 billion bushels (Table 5). Large year-over-year increases are expected in all three major producing countries. The Brazilian crop is projected at 2.37 billion bushels, 22.6 percent larger than the 2004 harvest. The crops in Argentina and Paraguay are expected to be 14.7 percent and 25.2 percent larger, respectively. Larger crops are forecast based on a large increase (7 percent) in soybean acreage in Brazil and a return to more normal yields in both Brazil and Argentina (Table 7). Combined production in Bolivia and Uruguay (not included in the total above) is forecast at 103 million bushels, up from 91 million in 2004. World oilseed production in 2004-05 is expected to total 391.4 million tons, 16 percent larger than last

year's production (Table 8).

Weather over the next six weeks will be critical for the size of the South American crop. Currently, production prospects remain good in spite of some periods of dry weather in southern Brazil and early occurrence of soybean rust. Unless those conditions change dramatically, U.S. exports are unlikely to exceed the current USDA projection.

The domestic crush of soybeans will be driven by the demand for soybean meal, since meal is not stored in large quantities. Domestic meal consumption is being supported by relatively high prices for livestock, expansion in beef and poultry production, and low soybean meal prices. Domestic meal consumption during October and November 2004 was estimated at just over 6.1 million tons, 9.2 percent more than during the same period in 2003. Part of that increase likely reflected the re-building of pipeline supplies at locations other than processing plants. For the year, the USDA projects a 5.1 percent increase in domestic use of meal. That forecast implies a 4.2 percent year-over-year increase during the last 10 months of the marketing year. It appears unlikely that use will exceed that projection. U.S. soybean meal exports during the current marketing year are projected at 5.7 million tons, 31 percent above the meager exports of a year ago. Shipments during the first two months of the marketing year totaled about 1.1 million tons, slightly less than shipments in 2003. As of January 13, 2005, however, the USDA's export sales report indicated cumulative shipments of 2.17 million tons, 20 percent ahead of last year's total. Shipments plus outstanding sales totaled 3.7 million tons.

If the market requires 39.6 million tons of U.S. soybean meal, as projected (Table 9), about 1.662 billion bushels of soybeans will need to be crushed, assuming the meal yield stays on course to average 47.5 pounds per bushel. Combined with exports of 1.01 billion and seed and residual use of 156 million, total consumption is projected at 2.828 billion bushels (Table 10).

If 1.662 billion bushels of soybeans are crushed during the current marketing year, about 18.781 billion pounds of soybean oil will be produced if

the average oil yield stays in pace to average 11.3 pounds per bushel. That level of production would allow for a significant rebuilding of inventories by the end of the marketing year even with a substantial increase in oil consumption. Domestic use of oil during the first two months of the marketing year was up 3.8 percent. Assuming there was some rebuilding of stocks during that period, the USDA's projection of 2.6 percent increase for the year appears reasonable. U.S. soybean oil exports are expected to partially recover from last year's poor performance. Those exports are projected at 1.3 billion pounds. A sizeable increase was reported in November 2004. Total oil consumption is projected at 18.6 billion pounds, leaving year ending stocks at 1.362 billion pounds (Table 11).

### **Prospects for the 2005 U.S. Crop**

Beyond the size of the 2005 South American crop, the most important price factor will be the potential size of the 2005 U.S. soybean crop. The USDA will release the results of the annual prospective plantings survey on March 31, 2005. This will provide the first objective information about the magnitude of soybean acreage in 2005. There is a general expectation that planted acreage of soybeans will decline from the level of plantings in 2004. The decline is expected to come as a result of the trend towards increasing profitability of corn production relative to soybean production in some midwest areas and the increased costs and yield uncertainty associated with the presence of soybean rust in the U.S.

The magnitude of change in soybean acreage in 2005 is difficult to anticipate due to the large reduction in winter wheat area, which will result in more area available for spring planted crops, and possible regional differences in response to soybean rust. It is generally expected that acreage will decline in southern growing areas and perhaps the eastern corn belt due to a higher likelihood of soybean rust. The response in the western corn belt and upper midwest may be more limited if the perceived risk of soybean rust is lower. Spring weather conditions and the potential profitability of alternative crops may also impact planting decisions. At this juncture, we might anticipate a decline of about 2 million acres in 2005, resulting in acreage near the level of

2003.

Yield prospects for 2005 are clouded by the usual uncertainty about planting and growing season weather and uncertainty about problems from existing insects and diseases. Soybean rust, of course, adds another element to the mix. The location, timing, and severity of the occurrence of soybean rust and the ability of the industry to effectively manage rust are mostly unpredictable.

As a starting point, a reduction of 2 million acres would result in harvested acreage in 2005 near 71.96 million. A trend yield of 40 bushels per acre would result in a 2005 crop of about 2.88 billion bushels. With carryover stocks of 430 million bushels, total supplies would be 3.31 billion. Assuming that 200 million bushels is a comfortable level of carryover stocks, such a supply would allow for consumption of 3.11 billion bushels during the 2005-06 marketing year. That is 282 million (10 percent) more than is expected to be consumed during the current marketing year. The implication is that acreage will have to decline by more than 2 million acres and/or the 2005 average yield will have to be below trend to result in supply concerns for the year ahead.

### **Price Prospects**

Soybean prices so far in the 2004-05 marketing year have been higher than anticipated based on the large supply situation. The average monthly price of soybeans and soybean products Since the beginning of the marketing year are as follows.

Month	Soybeans <sup>1</sup>	Meal <sup>2</sup>	Oil <sup>2</sup>
	\$/bu	\$/T	¢/lb
Sept. 2004	5.84	--	--
Oct.	5.56	155.19	23.23
Nov.	5.36	153.90	22.95
Dec.	5.41	161.16	21.79
<sup>1</sup> U.S. average farm price; <sup>2</sup> central Illinois; <sup>3</sup> mid-month for soybeans			

The higher than expected price has been the result of relatively high soybean oil prices. Meal prices have been near the level experienced from 1998-99 through 2001-02 when soybean supplies were large (Table 9). Soybean oil prices have been significantly higher than during those same four years (Table 11). Some weakness in oil prices is now being experienced as pipelines have been filled and stocks levels are beginning to increase.

The average spot cash price of soybeans in central Illinois was at \$6.455 on September 1, 2004 (the first day of the 2004-05 marketing year), declined to \$4.80 on October 13 as the large new crop became available to the market, and then recovered to a post-harvest high of \$5.515 on November 23 and on December 21. That price was at \$5.20 on January 24, 2005. The post-harvest price range of \$.715 is small by historical standard. A new high and/or low should be expected by the end of the marketing year.

For the 2004-05 marketing year, the USDA projects the average farm price to be between \$4.75 and \$5.45. The weighted average price during the first 5 months of the marketing year (September 2004 through January 2005) will likely be near \$5.50 with about 63 percent of the crop already sold. To average near the midpoint of the USDA's range (\$5.10) the average for the last 37 percent of the crop sold would need to be near \$4.45. It is unlikely that the average will be that low. It appears that the average for the year will be near \$5.25.

Prices are expected to be under some pressure over the next two months if the South American crop remains in good shape. Cash prices may decline below the CCC loan rate, bringing loan deficiency payments back into play. More price volatility can be expected from April forward as new crop prospects dominate prices. New crop prices have also declined near the loan rate, making additional sales unnecessary at this time. It appears, however, that new crop prices may show a little more strength than old crop prices as the market worries about the size of the 2005 crop. The premium for new crop cannot exceed full carry.

Issued by Darrel Good  
Extension Economist  
University of Illinois

Table 1. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	million bushels																									
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862	2,877
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643	2,836
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468	3,107
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452	3,150
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418	3,141
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,756	2,454	

Table 2. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 <sup>a</sup>	---	72.2	70.9	69.4
1983	68.8 <sup>a</sup>	65.8 <sup>b</sup>	63.3	63.8	62.5
1984	65.2 <sup>a</sup>	---	68.0	67.8	66.1
1985	64.4 <sup>a</sup>	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.963	72.497
2003		73.182	73.653	73.404	72.476
2004		75.411	74.809	75.208	73.958

<sup>a</sup> February 1<sup>b</sup> May 1

Table 3. Planted Acres of Soybeans by Region

Region	Western Corn Belt <sup>a</sup>		Eastern Corn Belt <sup>b</sup>		Mid-South <sup>c</sup>		Southeast <sup>d</sup>		East Coast <sup>e</sup>		United States	
	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,700	13.2	2,360	3.2	1,770	2.4	73,730	100.0
2000	37,050	49.9	24,050	32.4	9,010	12.1	2,230	3.0	1,926	2.6	74,266	100.0
2001	37,700	50.9	24,650	33.3	7,685	10.4	2,135	2.9	1,905	2.5	74,075	100.0
2002	37,070	50.1	24,740	33.5	8,170	11.0	2,145	2.9	1,838	2.5	73,963	100.0
2003	37,650	51.3	23,770	32.4	7,990	10.9	2,253	3.0	1,741	2.4	73,404	100.0
2004	38,000	50.5	23,550	31.4	9,100	12.1	2,579	3.4	1,979	2.6	75,208	100.0

<sup>a</sup> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota<sup>b</sup> Illinois, Indiana, Michigan, Ohio, Wisconsin<sup>c</sup> Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas<sup>d</sup> Alabama, Florida, Georgia, North Carolina, South Carolina<sup>e</sup> Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 4. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	million bushels																									
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4	39.1
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4	38.5
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0	42.0
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8	42.6
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4	42.5
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	33.9	



Table 5. Soybean Quarterly Balance Sheet

	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	million bushels																						
September 1 stocks	254.5	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.4
Production	2,190.3	1,635.8	1,860.9	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,653.8	2,757.8	2,890.7	2,756.1	2,453.7	3,141.0
TOTAL	2,444.8	1,980.4	2,036.6	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,968.8	2,637.6	3,258.4
September-November																							
Crush	284.2	269.6	253.7	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7	420.9	427.5	417.5	419.4	428.7
Export	245.9	190.6	153.4	166.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8	315.5	348.6	320.4	385.7	406.4
Seed, residual	-36.2	48.5	14.8	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	112.3	140.5	114.4
TOTAL	493.9	508.7	421.9	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	850.2	945.6	949.5
December 1 stocks	1,950.9	1,471.7	1,614.7	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.4	2,182.7	2,240.0	2,275.6	2,115.4	1,688.7	2,304.9
Crush	314.9	262.5	276.4	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	423.2	
Export	263.6	234.6	230.2	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	425.5	335.1	
Seed, residual	26.6	18.8	47.0	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.9	25.9	
TOTAL	605.1	515.9	553.6	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	914.4	784.2	
March 1 stocks	1,345.8	955.8	1,061.1	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,202.0	905.8	
Crush	260.1	240.0	258.2	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	359.5	
Export	216.2	204.2	153.4	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	194.4	117.6	
Seed, residual	78.9	39.9	41.1	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	6.3	19.1	
TOTAL	555.2	484.1	452.7	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	600.9	496.2	
June 1 stocks	790.6	471.7	608.4	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	410.6	
Crush	248.8	210.6	242.1	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	327.6	
Export	179.5	113.6	61.1	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	104.1	45.8	
Seed, residual	17.7	-28.2	-10.9	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-54.7	-74.3	
TOTAL	446.0	296.0	292.3	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	299.1	
September 1 stocks	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	112.7	
Annual																							
Crush	1,108.0	982.7	1,030.4	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,699.7	1,615.3	1,529.7	
Export	905.2	743.0	598.1	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	996.0	1,063.5	1,045.0	884.2	
Seed, residual	87.0	79.0	92.0	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	130.2	111.2	
TOTAL	2,100.2	1,804.7	1,720.5	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.10	2,933.3	2,790.5	2,525.2	

Table 6. Soybean Production by Country

Year	United States	Brazil <sup>a</sup>	Argentina <sup>a</sup>	Paraguay <sup>a</sup>	China	Other	World	All Foreign
million bushels								
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,756	1,911	1,304	165	607	498	7,241	4,485
2003	2,454	1,933	1,249	147	566	625	6,974	4,520
2004	3,141	2,370	1,433	184	661	690	8,479	5,338

<sup>a</sup> Harvested in the spring of the following year.

Table 7. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.45	2.45	3.55
2002-03	18.45	2.82	52.00	12.60	2.82	35.50	1.55	2.90	4.50
2003-04	21.48	2.45	52.60	14.00	2.43	34.00	1.75	2.29	4.00
2004-05	23.00	2.80	64.50	14.20	2.75	39.00	2.00	2.50	5.00

Source: USDA, FAS

Table 8. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
million metric tons						
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.3	325.1	78.67	106.20	184.87
2002-03	83.9	245.7	329.6	75.01	122.07	197.08
2003-04	76.6	260.4	336.0	66.78	123.03	189.81
2004-05	96.6	294.8	391.4	85.48	145.28	230.70

<sup>1</sup>WASDE January 2005 and earlier.

Table 9. Soybean Meal Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	thousand tons															
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211
Production	<u>27,719</u>	<u>28,325</u>	<u>29,831</u>	<u>30,364</u>	<u>30,514</u>	<u>33,270</u>	<u>32,527</u>	<u>34,210</u>	<u>38,176</u>	<u>37,792</u>	<u>37,591</u>	<u>39,385</u>	<u>40,292</u>	<u>38,194</u>	<u>36,324</u>	<u>39,472</u>
TOTAL <sup>a</sup>	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,600	36,815	39,848
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,361	32,260	33,900
Exports	<u>5,319</u>	<u>5,469</u>	<u>6,946</u>	<u>6,232</u>	<u>5,356</u>	<u>6,717</u>	<u>6,002</u>	<u>6,994</u>	<u>9,330</u>	<u>7,122</u>	<u>7,332</u>	<u>7,703</u>	<u>7,508</u>	<u>6,019</u>	<u>4,344</u>	<u>5,700</u>
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,380	36,604	39,600
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	211	248
Price <sup>b</sup>	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$256.05	\$160.00

<sup>a</sup> Includes imports<sup>b</sup> Bulk, Decatur, Illinois 48%

Table 10. Soybean Balance Sheet -- Years Beginning September 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05 <sup>a</sup>
	million bushels															
Carryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112
Production	<u>1,924</u>	<u>1,926</u>	<u>1,987</u>	<u>2,190</u>	<u>1,870</u>	<u>2,515</u>	<u>2,174</u>	<u>2,380</u>	<u>2,689</u>	<u>2,741</u>	<u>2,654</u>	<u>2,758</u>	<u>2,891</u>	<u>2,756</u>	<u>2,454</u>	<u>3,141</u>
TOTAL <sup>b</sup>	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,969	2,638	3,258
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,530	1,662
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	885	1,010
Seed, feed, residual	<u>101</u>	<u>94</u>	<u>103</u>	<u>129</u>	<u>94</u>	<u>151</u>	<u>111</u>	<u>123</u>	<u>159</u>	<u>201</u>	<u>163</u>	<u>169</u>	<u>169</u>	<u>131</u>	<u>111</u>	<u>156</u>
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,791	2,526	2,828
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	112	430
U.S. Average price	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.34	\$5.25

<sup>a</sup> Projected

Table 11. Soybean Oil Balance Sheet -- Years Beginning October 1

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
	million pounds															
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076
Production	<u>13,003</u>	<u>13,406</u>	<u>14,346</u>	<u>13,778</u>	<u>13,951</u>	<u>15,613</u>	<u>15,240</u>	<u>15,752</u>	<u>18,143</u>	<u>18,081</u>	<u>17,825</u>	<u>18,420</u>	<u>18,898</u>	<u>18,430</u>	<u>17,080</u>	<u>18,781</u>
TOTAL <sup>a</sup>	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,835	18,877	19,962
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,081	16,866	17,300
Exports	<u>1,353</u>	<u>779</u>	<u>1,647</u>	<u>1,419</u>	<u>1,529</u>	<u>2,680</u>	<u>992</u>	<u>2,037</u>	<u>3,079</u>	<u>2,372</u>	<u>1,376</u>	<u>1,401</u>	<u>2,519</u>	<u>2,263</u>	<u>935</u>	<u>1,300</u>
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,344	17,801	18,600
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,076	1,362
Average Price <sup>b</sup>	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	30.0¢	21.0¢

<sup>a</sup> Includes imports

<sup>b</sup> Bulk, Decatur, Illinois 44%